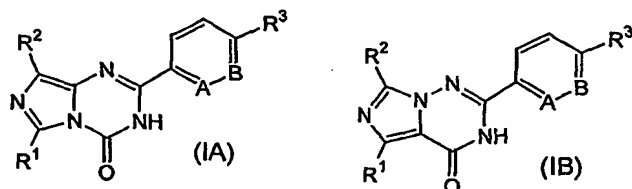


## CLAIMS

1. An imidazotriazinone compound represented by the following formula (IA) or (IB):



wherein

A is N or CR<sup>4</sup>;

B is N or CH;

R<sup>1</sup> is substituted or unsubstituted cycloalkyl group or tert-butyl group;

R<sup>2</sup> is a hydrogen atom or C<sub>1</sub>-C<sub>6</sub> alkyl group;

R<sup>3</sup> is a hydrogen atom; nitro group; cyano group; a halogen atom; heteroaryl group; substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub> alkyl group; substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub> alkenyl group; saturated or unsaturated heterocycloalkyl group which is substituted or unsubstituted; a group: -NR<sup>5</sup>R<sup>6</sup>, -C(O)R<sup>7</sup>, -SO<sub>2</sub>R<sup>7</sup>, -OR<sup>8</sup>, -NR<sup>8</sup>COR<sup>7</sup>, -NR<sup>8</sup>SO<sub>2</sub>R<sup>7</sup>;

R<sup>4</sup> is a hydrogen atom or C<sub>1</sub>-C<sub>3</sub> alkoxy group which is unsubstituted or substituted by one or more fluorine atom(s);

R<sup>5</sup> and R<sup>6</sup> are, same or different from each other, a hydrogen atom; substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub> alkyl group; substituted or unsubstituted acyl group; or substituted or unsubstituted heterocycloalkyl group;

R<sup>7</sup> is a hydrogen atom; substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub> alkyl group; substituted or unsubstituted heterocycloalkyl group; OH; -OR<sup>8</sup> or -NR<sup>5</sup>R<sup>6</sup>;

R<sup>8</sup> is a hydrogen atom, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub> alkyl group; or substituted or unsubstituted heterocycloalkyl group; or pharmaceutically acceptable salts or solvates thereof.

2. The compound represented by the formula (IA) according to claim 1.

3. The compound represented by the formula (IB) according to

claim 1.

4. The compound according to claim 1, 2 or 3, in which R<sup>1</sup> is substituted or unsubstituted C<sub>3</sub>-C<sub>8</sub> cycloalkyl group.

5 5. The compound according to claim 4, in which R<sup>1</sup> is selected from the group consisting of cyclopentyl, cyclohexyl and cycloheptyl .

6. The compound according to any one of claims 1 to 5, in which A is CR<sup>4</sup> wherein R<sup>4</sup> is methoxy or ethoxy group.

7. The compound according to any one of claims 1 to 6, in which B is CH.

10 8. The compound according to any one of claims 1 to 7, in which R<sup>2</sup> is methyl group.

9. The compound according to any one of claims 1 to 8, in which R<sup>3</sup> is a hydrogen atom; a halogen atom; saturated or unsaturated heterocycloalkyl group; group selected from the -NR<sup>5</sup>R<sup>6</sup>, -C(O)R<sup>7</sup>, and -SO<sub>2</sub>R<sup>7</sup>,  
15 wherein R<sup>7</sup> is OH, -OR<sup>8</sup>, -NR<sup>5</sup>R<sup>6</sup> and substituted or unsubstituted heterocycloalkyl group.

10. A pharmaceutical composition containing a compound according to any one of claims 1 to 9, or pharmaceutically acceptable salts or solvates thereof as active ingredient.

20 11. A PDE 7 inhibitor containing a compound according to any one of claims 1 to 9, or pharmaceutically acceptable salts or solvates thereof as active ingredient.